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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/673,203	09/30/2003	Hermann Kuhlmann	08500001BA	9611
30743 7590 05/17/2007 WHITHAM, CURTIS & CHRISTOFFERSON & COOK, P.C. 11491 SUNSET HILLS ROAD SUITE 340 RESTON, VA 20190			EXAMINER ANTHONY, JOSEPH DAVID	
			ART UNIT 1714	PAPER NUMBER
			MAIL DATE 05/17/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/673,203

Applicant(s)

KUHLMANN ET AL.

Examiner

Joseph D. Anthony

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 3/3/07 as an amendment.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-15, 18, 19 and 25-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-15, 18, 19 and 25-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **FINAL REJECTION**

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 9-15, 18-19 and 25-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Independent claim 9 is deemed to contain new matter in regards to the newly added limitation of "x ranges between 0.1 and 0.5", as set forth in the amendment filed 3/3/07. Although the examiner acknowledges that subscript "x" needs to be defined in the claim so that the listed formula for LDH is not indefinite, the examiner can find no support at all for said added subscript "x" range of "between 0.1 and 0.5". It is also noted that applicant made no attempt to list any support for said claimed range. Dependent claims 10-15, 18-19 and 25-28 are also being rejected here because they are dependent on a rejected base claim.

### ***Claim Rejections - 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 9-11, 15, 18-19 and 25-28 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Hansen et al., "The Use of Glycerol Intercalates in the Exchange of  $\text{CO}_3^{2-}$  with  $\text{SO}_4^{2-}$ ,  $\text{NO}_3^-$  or  $\text{Cl}^-$  in Pyroaurite-Type Compounds".

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See Section 1. on page 9 of the previous office action for details.

4. Claims 9-11, 15, 18-19 and 25-28 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over GB 1 336 864.

See section 2. on pages 9-10 of the previous office action for details.

5. Claims 9-11, 15, 18-19, and 28 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Martin et al. U.S. Patent Number 5,514,361.

See Section 3. on page 10 of the previous office action for details.

6. Claims 9-11, 15, 18-19 and 25-28 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Martin et al. U.S. Patent Number 5,728,363.

See Section 4. on pages 10-11 of the previous office action for details.

7. Claims 9-11, 15, 18-19 and 25-28 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Clark et al. U.S. Patent Number 4,773,936.

See Section 5. on page 11 of the previous office action for details.

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8. Claims 9-11, 15, 18-19, 26 and 28 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Narita et al. (JP 5-317603A, as evidenced by USPTO obtained translation).

See Section 6. on pages 11-12 of the previous office action for details.

9. Claims 9-11, 15, 18-19 and 25-28 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Diblitz et al. (WO 96/23727A1), as evidenced by Noweck et al. U.S. Patent Number 6,180,764.

See Section 7. on page 12 of the previous office action for details.

10. Claims 9-11, 15, 18-19, and 25-28 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Nosu et al. U.S. Patent Number 5,750,609.

See Section 8. on page 13 of the previous office action for details.

11. Claims 9-11, 15, 18-19 and 25-28 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Pinnavaia et al. U.S. Patent Number 5,079,203.

See Section 9. on page 13 of the previous office action for details.

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12. Claims 9-11, 15, 18-19 and 25-28 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Suzuki et al. U.S. Patent Number 5,976,401.

See Section 10. on pages 13-14 of the previous office action for details.

***Claims Free of Any Prior-art Rejections***

13. Claims 12-14 are deemed to be free of any prior-art rejections.

***Response to Arguments***

14. Applicant's arguments filed 3/3/07 with the amendment have been fully considered but are not persuasive to put the application in condition for allowance for the reasons set forth above. Additional examiner comments are set forth next.

Please note that the present examiner of this application is now Joseph D. Anthony, since the application has been transferred to me from the previous examiner M. Thexton who has left the PTO.

Applicant's principle argument for patentability over all the applied prior-art rejections is basically that the applied prior-art references neither teach nor suggest that their taught layered double hydroxides (LDH) can function as "A fertilizer or soil conditioner preparation," as set forth in the preamble language of each of applicant's pending claims. The examiner holds that even if the applied prior-art references do not teach or suggest that their taught layered double hydroxides (LDH) can function as "A fertilizer or soil conditioner preparation," such is deemed to be moot since the pending

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claims are composition type claims and are not method of use type claims. Applicant is reminded that the courts have constantly declared that preamble claim language to a novel and unobvious method of use for a composition does not render the composition itself patentable over an otherwise old or suggested composition, see *In re Touminen*, 21 USPQ 89 (CCPA 1982).

Applicant also argues that the metal hydroxide complexes as disclosed by the formulas, as set forth in Nosu U.S. Patent Number 5,750,609 and Suzuki U.S. Patent Number 5,976,401, do not read on applicant's claims layered double hydroxide (LDH), because they do not contain water of hydration which is a required part of applicant's claimed LDH. The examiner must disagree. A look at applicant's claimed formula for the LDH, as set forth in independent claim 9, has the water of hydration part as " $m \text{ H}_2\text{O}$ ". Since applicant's independent claim 9 does not define any range for " $m$ ", it is held by the examiner that " $m$ " reads on zero as the lower limit of the water of hydration concentration range. Applicant is advised in response to the present office action not to add new matter in any attempt to define a range for " $m$ ". Applicant will thus have to show where there is support in the originally filed disclosure for any proposed range for " $m$ ".

Finally, it is also noted that the LDH formula, as set forth in independent claim 9, has the constituent part of " $(\text{A}^{n-}_{x/n})$ ", but the body of claim 9 does not define the metes and bounds of subscript " $x/n$ ".



***Conclusion***

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

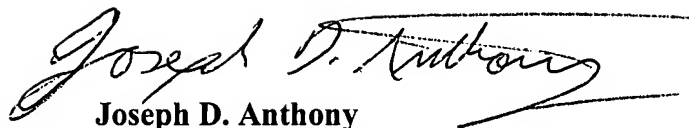
***Examiner Information***

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Joseph D. Anthony whose telephone number is (571) 272-1117. If attempts to reach the examiner are unsuccessful, the examiner's supervisor, Vasu Jagannathan, can be reached on (571) 272-1119. The centralized FAX machine number is (571) 273-8300. All other papers received by FAX will be treated as Official communications and cannot be immediately handled by the Examiner.

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A handwritten signature in cursive script, reading "Joseph D. Anthony". The signature is written in black ink and is positioned above the printed name.

**Joseph D. Anthony**  
**Primary Patent Examiner**  
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5/14/07